# Special Issue

# TiAl-Based Alloys and Their Applications

## Message from the Guest Editors

As an unique group of lightweight heat-resistant materials, TiAl-based alloys are highly praised for their wonderful properities, which let them replace currently used heavy and expensive nickel-based superalloys and the conventional titanium alloys in some aspects. However, the wide application of TiAl-based alloys is still hindered by their difficult manufacturing and processing, high production cost, low ductility at room temperature, low fracture toughness and oxidation resistance at high temperature, low formability, and current lower operational temperature limit over 750 °C. Intermetallic TiAl-based alloys exhibit the highest potential for near-term application in future aircraft engines though a great deal of research is still required. This Special Issue is dedicated to presenting the current status of knowledge on the correlation between microstructure and properties of TiAl-based alloys and composites produced in different advanced processing technologies.

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## Deadline for manuscript submissions

closed (28 February 2022)

**Metals**

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**Impact Factor 2.5**
**CiteScore 5.3**

mdpi.com/si/35359

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# About the Journal

## Message from the Editorial Board

Metallic materials play a vital role in the economic life of modern societies; contributions are sought on fresh developments that enhance our understanding of the fundamental aspects related to the relationships between processing, properties and microstructure – disciplines in the metallurgical field ranging from processing, mechanical behavior, phase transitions and microstructural evolution, nanostructures, as well as unique metallic properties – inspire general and scholarly interest among the scientific community.

## Editors-in-Chief

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